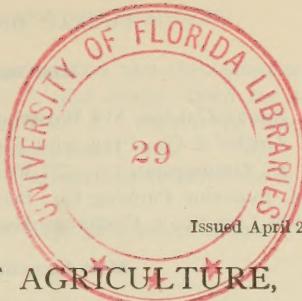


S. R. A.—B. A. I. 407.



Issued April 28, 1916.

## U. S. DEPARTMENT OF AGRICULTURE, BUREAU OF ANIMAL INDUSTRY.

A. D. MELVIN, CHIEF OF BUREAU.

### SERVICE AND REGULATORY ANNOUNCEMENTS.

MARCH, 1916.

[This publication is issued monthly for the dissemination of information, instructions, rulings, etc., concerning the work of the Bureau of Animal Industry. Free distribution is limited to persons in the service of the bureau, establishments at which the Federal meat inspection is conducted, public officers whose duties make it desirable for them to have such information, and journals especially concerned. Others desiring copies may obtain them from the Superintendent of Documents, Government Printing Office, Washington, D. C., at 5 cents each, or 50 cents a year. A supply will be sent to each official in charge of a station or branch of the bureau service, who should promptly distribute copies to members of his force. A file should be kept at each station for reference.]

### CONTENTS.

	Page.
Changes in directory.....	21
Issuance of bureau directory postponed.....	22
Notices regarding meat inspection:	
Modification of method of preparing pork hams customarily eaten without cooking.....	22
Return of bureau brands for repair or replacement.....	23
Use of bureau branding ink further restricted.....	23
Waiving requirement for submitting samples of ingredients of certain inks.....	23
Operation of fly traps at official establishments.....	23
Animals slaughtered under Federal meat inspection, February, 1916.....	25
Imports of food animals and of meats and meat food products.....	25
Foreign officials authorized to sign inspection certificates for meat and products for importation into the United States.....	
Inspection and testing of animals for Canada.....	26
Requirements governing importation of cattle hides, fleshings, hide cuttings, parings, and glue stock.....	27
Licenses and permits for veterinary biological products.....	27
Permitted disinfectants.....	28
Eradication of foot-and-mouth disease completed and quarantine removed.....	28
Instructions regarding foot-and-mouth disease.....	28
Convictions for violations of laws.....	29
Economy in use of supplies.....	30
Publications in February.....	30
Organization of the Bureau of Animal Industry.....	31

### CHANGES IN DIRECTORY.

#### Meat Inspection Inaugurated.

985. J. T. Polk Co., Greenwood, Ind.

2-AG. Armour & Co., 4 Main Street, Racine, Wis.

1014. The Mid West Sausage Works, 2748 West Colfax Avenue, Denver, Colo.

**Meat Inspection Discontinued.**

832. Simon Gordon, 814 Westchester Avenue, New York, N. Y.  
 410. Ziegler & Co., Plum and Elder Streets, Cincinnati, Ohio.  
 349. M. Zimmerman Co., 127 Fulton Street, Boston, Mass.  
 \* 934. Superior Packing Co., Second and Meyer Streets, Kansas City, Kans.;  
 mail, 804 Live Stock Exchange Building, Kansas City, Mo.

**Meat Inspection Temporarily Suspended.**

958. I. H. Sentz, 1002 North Franklin Street, Chicago, Ill.  
 980. Holcombe Provision Co. (Inc.), 74 North Canal Street, Newark, N. J.  
 \* 351. Valentine's Meat Juice Co., High and Goddin Streets, Richmond, Va.

**Stations Added.**

Greenwood, Ind., meat inspection (substation of Indianapolis, Ind.).  
 Racine, Wis., meat inspection (substation of Milwaukee, Wis.).  
 Birmingham, Ala., general supervision of tick eradication in the area under  
 quarantine for splenetic or Texas fever; Dr. J. A. Kiernan, 1108 Jefferson  
 County Savings Bank.

**Change in Firm Name.**

2-S. Armour & Co., 317 North Warren Street, Trenton, N. J., instead of  
 Armour Packing Co.

**Changes of Officials in Charge.**

Oklahoma, Okla., Dr. D. C. Hanawalt, instead of Dr. V. W. Knowles.  
 Oklahoma, Okla., Dr. W. L. Hiatt, instead of Dr. F. W. Brewer.

**Changes in Addresses of Officials in Charge.**

Dr. H. K. Walker, 929-930 Munsey Building, instead of 919-920 Munsey  
 Building, Washington, D. C.  
 Dr. E. E. Lollar, Room 1, Albright Building, Red Cloud, Nebr., instead of  
 Red Cloud, Nebr.

**ISSUANCE OF BUREAU DIRECTORY POSTPONED.**

Owing to the shortage of funds for printing, the issue of the bureau directory  
 usually published April 1 will be postponed.

**NOTICES REGARDING MEAT INSPECTION.****MODIFICATION OF METHOD OF PREPARING PORK HAMS CUSTOMARILY EATEN  
 WITHOUT COOKING.**

Referring to instructions respecting the preparation of pork hams, published  
 in Service and Regulatory Announcements of August, 1915, page 95, under the  
 caption "Methods to be followed in the preparation of pork products cus-  
 tomarily eaten without cooking," further experiments indicate that live trichinæ

---

\* Conducts slaughtering.

survive in hams which have been cured as prescribed and then smoked for 18 hours at a temperature not lower than 95° F. and finally dried for not less than 20 days at a temperature not lower than 40° F. Therefore, this method of smoking and drying such hams shall be discontinued.

Accordingly the eighth paragraph of the instructions referred to is hereby amended to read as follows:

"The hams shall be dried not less than 10 days at a temperature not lower than 95° F."

#### RETURN OF BUREAU BRANDS FOR REPAIR OR REPLACEMENT.

M. I. Form 151-A is to be used in connection with the return to the Washington office of both rubber and brass bureau brands containing the inspection legend which are obsolete or have become useless through wear or for any other reason. This form is to be used in addition to and *not* in lieu of Form P-2a, and after being properly executed it should be mailed to the Meat Inspection Division of the bureau at the time the brands are packed for shipment.

The supply of brands for each official establishment should be examined at least once a month for the purpose of determining their condition, and those which are in need of repair or replacement should be promptly returned to the Washington office.

#### USE OF BUREAU BRANDING INK FURTHER RESTRICTED.

Referring to the item in Service and Regulatory Announcements of August, 1914, page 107, entitled "Use of bureau branding ink restricted," it is imperative that the use of bureau ink be further restricted and that every practicable means be employed to conserve it. Inspectors in charge are therefore instructed to see that the use of bureau ink is discontinued in applying the marks of inspection to hog carcasses. Until further order it will be necessary for official establishments to furnish ink for use in connection with bureau brands in marking hog carcasses, in addition to that furnished as previously required, such ink being subject to the provision outlined in the item of Service and Regulatory Announcements above cited.

Official establishments may supply burning brands in lieu of ink for marking hog carcasses.

#### WAIVING REQUIREMENT FOR SUBMITTING SAMPLES OF INGREDIENTS OF CERTAIN INKS.

Pending further instructions, inspectors in charge of meat inspection should not submit samples of the *ingredients* of branding ink furnished by the establishment for use on meats when such ink is obtained from the same person or firm who has previously supplied ink the ingredients of which have been examined by the bureau and found to meet the requirements. However, each lot of *finished ink* prepared or received by the establishment should be sampled and the use of the ink permitted pending examination of the sample.

#### OPERATION OF FLY TRAPS AT OFFICIAL ESTABLISHMENTS.

The most essential step in controlling the propagation of various kinds of flies around official establishments is the abolition of breeding places and the destruction of fly larvæ by the use of hot water, crude petroleum, or borax, where the latter treatment is permissible. It is almost certain that some larvæ will escape destruction and produce flies, and in many cases flies bred in insan-

tary places not under Federal control will produce annoyance about official establishments. It is therefore necessary to employ measures to destroy these flies by trapping.

The Bureau of Entomology, working in cooperation with the Bureau of Animal Industry, has found that certain types of traps are much more effective than others for catching flies. These traps have been described in Service and Regulatory Announcements of the Bureau of Animal Industry for January, 1916. It has been demonstrated that the kind of bait, the type of bait container, and the frequency with which the bait containers are filled and the traps emptied are equally as important as the type of trap employed.

*Baits.*—For catching house flies stale beer is the most attractive bait. Where this material is not readily obtainable almost as good results may be accomplished by using malt extract. The latter bait is prepared by using 1 gallon of water to 2 pounds of ground malt. The water is heated to 135° F., the malt added, and then, during a period of 45 minutes, the temperature is gradually raised to 160° F. The extract is then strained off the grain, cooled, and is ready for use. Another bait which is slightly less attractive than malt extract consists of 3 parts water and 1 part "black-strap" molasses, which is allowed to ferment for a day or two before using. Still another mixture nearly as attractive as the molasses consists of 1 part of ordinary brown sugar dissolved in 4 parts of water and fermented for a few days before using. If it is necessary to use the sirup immediately after it is made, a small quantity of vinegar should be added.

Comparatively few blow flies are caught in traps with the above-mentioned baits. Where the various species of blow flies are found to be troublesome no bait will be found to equal gut slime. The addition of stale beer to the gut slime increases the total catch to some extent. Blood tankage with beer is also an effective fly attracter. The use of these latter combinations results in the capture of a large percentage of house flies. Even when beer is not added to the gut slime, from 40 to 50 per cent of the catch, by count, consists of house flies.

It is undesirable to use gut slime about edible departments. However, in these places practically no blow flies are found, hence stale beer or other house-fly bait should be employed exclusively. Blow flies are usually more abundant about inedible departments and where the rough offal is handled.

*Bait containers.*—As has been mentioned, there is a great variation in the quantity of flies caught according to the bait container used. Large, shallow pans, such as lard-bucket covers, are most effective. Where conical traps are employed the pans should always be circular. Their diameter should be about 4 inches less than that of the base of the trap, thus bringing the edge within 2 inches of the outside edge of the trap. When liquid baits are used the catch can be increased slightly by placing a small sponge or pieces of chips in the center of the bait pan. The bait pan should not be elevated, but should be placed on the surface upon which the trap stands.

*Care and location of traps.*—In order to make fly trapping effectual it is essential that the traps be numerous and that they receive careful attention. To get best results it is almost imperative that an employee of the establishment devote his entire time to fly control, including the operation of the traps. This employee should be under the supervision of a responsible official of the establishment, and the work should be carefully checked at intervals by bureau inspectors.

The traps should be located where the flies naturally congregate, which is usually on the sunny side of buildings, out of the wind. Largest catches are obtained when the traps are placed on the floor or ground, that is, not elevated

on shelves fastened to the wall. It is important that the bait containers be kept well filled. In hot weather this requires daily attention. The bait pans should be washed out at rather frequent intervals. This increases the catch and avoids the possibility of flies breeding in material used for bait.

The flies should be killed and the traps emptied frequently. This depends on the number of flies captured. When flies are abundant it is necessary to empty the traps every three or four days. If dead flies become piled high around the cone the catching power of the trap is decreased considerably. The destruction of the living flies may be accomplished by immersing the trap in hot water. This is objectionable, however, since the wet flies tend to stick to the trap, and the rusting of the screen is hastened. Another method is to place the trap in a refrigerating room until the flies are numb and then empty them into a furnace. Still another very convenient method is to place a few coals in a pan on the ground, scatter two tablespoonfuls of sulphur over the coals, place the trap over the coals and turn a tight barrel over the trap. The flies will be rendered motionless in about 5 minutes, and they may then be killed by placing them in the furnace or by utilizing hot water.

#### ANIMALS SLAUGHTERED UNDER FEDERAL MEAT INSPECTION, FEBRUARY, 1916.

City.	Cattle.	Calves.	Sheep.	Goats.	Swine.
Chicago.....	146,518	31,259	236,123	414	775,625
Fort Worth.....	15,957	4,287	8,244	469	98,585
Kansas City.....	65,363	4,714	122,266	555	270,225
National Stock Yards.....	32,495	5,005	26,274	17	167,992
Omaha.....	60,010	2,068	145,332	13	289,822
Sioux City.....	16,503	540	12,096	11	119,903
South St. Joseph.....	17,948	1,647	79,997	29	195,944
All other establishments.....	195,161	93,742	273,423	221	2,357,471
Total—February, 1916.....	549,955	143,262	903,755	1,729	4,275,567
February, 1915.....	466,122	96,096	945,912	4,580	3,885,177
8 months ending February, 1916.....	5,119,246	1,129,236	8,511,935	97,607	27,761,818
8 months ending February, 1915.....	4,796,761	984,681	9,471,267	111,516	24,124,513

#### IMPORTS OF FOOD ANIMALS AND OF MEATS AND MEAT FOOD PRODUCTS.

The statements following show the imports of food animals and of meats and meat food products inspected by the Bureau of Animal Industry during February, 1916, with figures for other periods for comparison.

##### *Imports of food animals.*

Country of export.	Cattle.	Swine.	Sheep.	Goats.
Mexico.....	6,235	497	3,462	292
Canada.....	1,137	8	175	.....
Total—February, 1916.....	7,372	505	3,637	292
February, 1915.....	50,996	10,687	43,920	17,473
8 months ending February, 1916.....	382,173	4,257	195,363	75,220
8 months ending February, 1915.....	433,893	158,281	148,957	54,165

*Imports of meats and meat food products.*

Country of export.	Fresh and refrigerated.		Canned and cured.	Other products.	Total.
	Beef.	Other.			
Argentina.....	6,387,804	3,840,412	21,180	.....	10,249,396
Brazil.....	1,106,761	.....	.....	.....	1,106,761
Canada.....	214,213	17,203	26,676	1,923	260,015
Uruguay.....	261,756	515,889	.....	.....	777,645
Other countries.....	3,587	.....	26,050	18,055	47,692
Total—February, 1916.....	7,974,121	4,373,504	73,906	19,978	12,441,509
February, 1915.....	15,223,304	1,664,438	537,538	562,446	17,997,726
8 months ending February, 1916.....	73,314,704	14,920,699	2,197,442	1,412,031	91,834,877
8 months ending February, 1915.....	148,956,110	22,527,274	21,927,625	4,699,341	198,120,350

Condemned in February, 1916: Beef, 2,325 pounds; mutton, 120 pounds; pork, 300 pounds; total, 2,745 pounds. Refused entry: Beef, 1,282 pounds.

#### FOREIGN OFFICIALS AUTHORIZED TO SIGN INSPECTION CERTIFICATES FOR MEAT AND PRODUCTS FOR IMPORTATION INTO THE UNITED STATES.

The following are additional names, addresses, and facsimile signatures of foreign national government officials authorized to sign and issue certificates of inspection for meat and meat food products offered for importation into the United States:

Country, name, and address.	Signature.
<i>Canada.</i> S. E. Lawrence, Winnipeg, Manitoba.	<i>S. E. Lawrence</i>
<i>Spain.</i> Juan Rof Codina, Coruna.	<i>Juan Rof Codina</i>

#### INSPECTION AND TESTING OF ANIMALS FOR CANADA.

The following changes have been made in the list of practicing veterinarians registered by the bureau and authorized to inspect and test with mallein horses, mules, and asses intended for export to Canada:

##### Name Added to List.

Dr. S. H. Regenos, Leslie, Mich.

##### Change in Address.

Dr. R. C. Moore, Scott City, Kans., to St. Joseph, Mo.

**REQUIREMENTS GOVERNING IMPORTATION OF CATTLE HIDES,  
FLESHINGS, HIDE CUTTINGS, PARINGS, AND GLUE STOCK.**

As the regulations for the disinfection of hides of neat cattle (Treasury Department circular of May 2, 1910) are out of print and no longer available, and in view of the delay which has occurred in the issuance of the contemplated new regulations owing to conditions rendering further investigations desirable, a concise statement of the requirements under existing regulations is here given.

Abattoir hides, the product of Sweden, Norway, New Zealand, Australia, Great Britain, and Argentina, may be imported without disinfection when accompanied by a certificate of an official veterinarian of the country where slaughtered showing that they were taken from cattle free from disease at the time of slaughter.

All other hides of neat cattle, including calf skins, from any part of the world except North America, must be accompanied either by a certificate signed by the American consul of the district from whence shipped, stating that anthrax is not prevalent and that neither foot-and-mouth disease nor rinderpest exists in such district, or by a certificate signed by the American consul showing disinfection by immersion for 30 minutes in a 1 to 1,000 bichlorid of mercury solution.

If certified by the American consul as coming from a district in which anthrax is not prevalent (but in which foot-and-mouth disease or rinderpest exists), a certificate of disinfection by immersion in a 5 per cent solution of carbolic acid will be accepted. In the case, however, of hides from districts in which anthrax is prevalent, disinfection by immersion for at least 30 minutes in 1 to 1,000 bichlorid of mercury only will be permitted.

Fleshings, hide cuttings and parings, or glue stock, may be imported without disinfection when the material is shown by consular certificate or by the consular invoice used upon entry to have been lime-dried after soaking for 40 days in a strong limewash, or to consist of glue stock which has been dried by exposure to the action of the sun and air for sufficient time to render each piece of the hardness of a sun-dried hide, provided a certificate in proper form is filed with the American consul by the exporter showing that none of the products shipped were taken from animals affected with anthrax.

---

**LICENSES AND PERMITS FOR VETERINARY BIOLOGICAL  
PRODUCTS.**

Licenses for the manufacture and permits for the importation of veterinary biological products have been issued as follows for the calendar year 1916, under the act of Congress of March 4, 1913 (37 Stat., 832), and the regulations made thereunder (B. A. I. Order 196). This list supplements those published in Service and Regulatory Announcements for December, 1915, page 132, and for January, 1916, page 8.

*Licenses for the manufacture of veterinary biological products.*

License No.	Date of issue.	Name and address.	Products.
15	Feb. 8, 1916	C. Rhea Serum Co., <sup>1</sup> 311 Central Avenue, Kansas City, Kans.	Anti-hog-cholera serum; hog-cholera virus.
20	Feb. 18, 1916	The Cook Biological Laboratories Co., 1368 Avon Place, Cincinnati, Ohio.	Equine influenza bacterin; equine strangles bacterin; antisuppurine bacterin; equine pneumonia bacterin; canine distemper bacterin.
90	Feb. 8, 1916	The Ford Serum Co., 320-322 North First Street, Kansas City, Kans.	Anti-hog-cholera serum; hog-cholera virus.
108	Mar. 30, 1916	Universal Serum Co., First Street and St. Clair Avenue, East St. Louis, Ill.	Do.

<sup>1</sup> The license issued to the Tri-State Serum Co. Dec. 22, 1915, was canceled Feb. 8, 1916, and reissued with change of name, as above shown.

*Permit for the importation of veterinary biological products.*

Permit No.	Date of issue.	Name and address of firm.	Products.
1	Mar. 28, 1916	C. Bischoff & Co. (Inc.), 451 Washington Street, New York, N. Y.	Antitetanic serum; tuberculin.

**PERMITTED DISINFECTANTS.**

In accordance with the provisions of Amendment 6 to B. A. I. Order 210, the bureau has granted permission for the use of a saponified cresol solution, "Karspray," manufactured by the West Disinfecting Co., New York, N. Y., as a substitute for cresol compound U. S. P., in the general disinfection of cars, yards, and other premises. This is in addition to others previously permitted.

**ERADICATION OF FOOT-AND-MOUTH DISEASE COMPLETED AND QUARANTINE REMOVED.**

As the eradication of foot-and-mouth disease in the United States appears to be complete, no case having been discovered for some time, the Secretary of Agriculture, by the issuance of B. A. I. Order 243, effective March 31, 1916, has removed the last quarantine due to this disease. This order specifically removes the quarantine from a small territory in Christian County, Ill., the last area which was under suspicion.

The magnitude of the work of eradication is shown by the fact that before being controlled the disease had gained a temporary footing in 22 States and the District of Columbia. The disease appeared and was controlled in 269 different counties.

While there is every reason to believe that the infection is wiped out, bureau employees should maintain vigilance to detect any possible recurrence of the disease.

**INSTRUCTIONS REGARDING FOOT-AND-MOUTH DISEASE.**

One copy of a booklet of Instruction for Employees Engaged in Eradicating Foot-and-Mouth Disease is being sent to each inspector in charge of a field

station. These instructions indicate the procedure to be followed in case of the discovery of further cases or suspected cases of foot-and-mouth disease. This copy should be retained as an office copy and should not be taken away except in the event of sending an inspector to investigate a reported outbreak of the disease, in which case the instructions should be strictly followed.

## CONVICTIONS FOR VIOLATIONS OF LAWS.

### MEAT-INSPECTION LAW.

For violations of the meat-inspection law the following-named defendants were fined the amounts indicated:

Wilmer A. Twining, Wycombe, Pa., \$25.  
 Howard Walker, Wycombe, Pa., \$25.  
 E. Newlin Brown, Wycombe, Pa., \$50.  
 Arthur P. Gibson, Goshen, N. Y., \$50.  
 Byron R. Clark, Monroe, N. Y., \$20.  
 Jay Woodard, Ancram, N. Y., \$10.  
 William D. Hoolihan, Long Eddy, N. Y., \$10.  
 James McKenna, Bullville, N. Y., \$20.  
 Fred F. Felter, Washingtonville, N. Y., \$10.

### TWENTY-EIGHT-HOUR LAW.

The following results of prosecutions for violations of the 28-hour law were reported to the bureau during the month of March, 1916:

Number of cases.	Defendant.	Penalty.	
		Fine.	Costs.
2	Richmond, Fredericksburg & Potomac R. R. Co.	\$200.00	.....
1	Southern Ry. Co.	200.00	\$21.25
1	Cincinnati, Lebanon & Northern Ry. Co.	100.00	.....
42	Baltimore & Ohio R. R. Co.	8,400.00	.....
9	Pennsylvania R. R. Co.	1,800.00	.....
42	Pittsburgh, Cincinnati, Chicago & St. Louis R. R. Co.	8,400.00	.....
Total (97 cases)		19,100.00	21.25

<sup>1</sup> And costs.

### QUARANTINE LAWS.

The following results of prosecutions for violations of the live-stock quarantine laws have been reported to the bureau during the month of March, 1916:

Number of cases.	Defendant.	Nature of violation.	Penalty.	
			Fine.	Costs.
1	Missouri, Kansas & Texas Ry. Co.	Shipments interstate in violation of Texas-fever regulations.	\$100.00	.....
1	Receivers of Chicago, Rock Island & Pacific Ry. Co.	.....do.....	100.00	\$2.80
1	Adams Express Co.	Shipments interstate in violation of foot-and-mouth regulations.	10.00	.....
Total (3 cases)			210.00	2.80

<sup>1</sup> And costs.

**ECONOMY IN USE OF SUPPLIES.**

Because of the increasing demands of the bureau work, the strictest economy in the use of all supplies is urged upon every employee. All requests for supplies, including M. I. forms, should be held to the minimum actually required. Some supplies, such as tags, seals, and hog rings used in meat inspection, and thermometers used in meat inspection and field inspection, and other supplies that are peculiar to various branches of the bureau's activities must, of course, be used as required.

Experience has shown that changes in conditions of operation have often left idle stocks of various supplies. Any such unused stock should be utilized, if possible. Inspectors in charge are requested to take an accurate and complete inventory and inform the Washington office of any stock in excess of actual needs.

The earnest cooperation of all employees in the reduction of expense through the careful use of supplies is desired.

---

**PUBLICATIONS IN MARCH.**

[The bureau keeps no mailing list for sending publications to individual employees, but publications are sent in bulk to inspectors in charge for distribution to members of their forces. The number of copies varies with the subject or nature of the publication and the number and class of employees. For example, in the case of a publication on a veterinary subject, sufficient copies are sent for the veterinarians. Inspectors in charge will use their judgment and distribute publications to best advantage. Additional copies will be furnished on request so far as possible.]

Department Bulletin 356. Milk and Cream Contests. By Ernest Kelly, in charge of market milk investigations, and L. B. Cook and J. A. Gamble, market milk specialists, Dairy Division. Pp. 24.

Proceedings of a Conference to Consider Means for Combating Foot-and-Mouth Disease. Held at Chicago, Ill., November 29 and 30, 1915. Pp. 157. (Not available for general distribution, because of small edition allowed by law.)

Amendment 49 to B. A. I. Order 238. To Prevent the Spread of Foot-and-Mouth Disease in Cattle, Sheep, Other Ruminants, and Swine. (Modifies quarantine in Christian County, Ill.)

Amendment 50 to B. A. I. Order 238. (Modifies the quarantine in Christian County, Ill.)

Amendment 1 to B. A. I. Order 241. To prevent the Spread of Splenetic, Southern, or Texas Fever in Cattle. (Releases from quarantine portions of Florida, Georgia, Mississippi, North Carolina, South Carolina, and Texas.)

Amendment 2 to B. A. I. Order 241. (Corrects errors in the description of the quarantined area of Florida, Georgia, and South Carolina.)

B. A. I. Order 243. Revoking the Quarantine to Prevent the Spread of Foot-and-Mouth Disease in Cattle, Sheep, Other Ruminants, and Swine, and Removing Restrictions on Account of Such Disease from the Interstate Movement of Live Stock From Illinois.

## ORGANIZATION OF THE BUREAU OF ANIMAL INDUSTRY.

*Chief:* A. D. MELVIN.

*Assistant Chief:* JOHN R. MOHLER.

*Chief Clerk:* CHARLES C. CARROLL.

*Animal Husbandry Division:* GEORGE M. ROMMEL, chief.

*Biochemic Division:* M. DORSET, chief.

*Dairy Division:* B. H. RAWL, chief.

*Field Inspection Division:* R. A. RAMSAY, chief.

*Meat Inspection Division:* R. P. STEDDOM, chief.

*Miscellaneous Division:* A. M. FARRINGTON, chief.

*Pathological Division:* ADOLPH EICHHORN, chief.

*Quarantine Division:* RICHARD W. HICKMAN, chief.

*Zoological Division:* B. H. RANSOM, chief.

*Experiment Station:* E. C. SCHROEDER, superintendent.

*Editor:* JAMES M. PICKENS.

*Office of Accounts:* E. J. NEWMYER, in charge

*Appointment Section:* IRVING W. PEW, in charge.

# UNIVERSITY OF FLORIDA



3 1262 08850 3718